

REMARKS

Applicant thanks the Examiner for the careful consideration of this application. Claims 1-18 and 20 are currently pending. Claims 1-18 and 20 have been amended. Claim 19 has been canceled, without prejudice. Based on the foregoing amendments and the following remarks, the Applicant respectfully requests that the Examiner reconsider all outstanding rejections and that they be withdrawn.

Rejections under 35 U.S.C. §§ 101 and 112

In paragraphs 1-4, the Office Action rejected claims 1-16 for various reasons under 35 U.S.C. § 101 and/or § 112. The claims in this application, namely claims 1-18 and 20, have been amended throughout to place them in conformance with U.S. patent practice. As a result of these amendments, the rejections under 35 U.S.C. §§ 101 and 112 have been overcome. Accordingly, the Applicant respectfully requests that the rejections under 35 U.S.C. §§ 101 and 112 be withdrawn.

Rejections under 35 U.S.C. § 102

In paragraph 5, the Office Action rejected claim 1 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,334,240 to Black. The Applicant respectfully traverses this rejection.

Claim 1, as amended, recites “a first measuring device comprising a first radiation source adapted to radiate light onto the multi-segmented filters, and a first radiation receiver adapted to

receive light reflected off of the multi-segmented filters.” Black does not disclose such a configuration, *inter alia*, because Black fails to disclose a radiation receiver adapted to receive light **reflected off** of the filter segments 11, 12. In contrast, the photomultiplier tube 9 only receives light diffusing **through** the filter segments 11, 12. (*See, e.g.*, Black at 2:63-69.) Accordingly, the Applicant respectfully requests that this rejection be withdrawn.

In paragraph 6, the Office Action rejected claim 18 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,432,600 to Grollmund et al. The Applicant respectfully traverses this rejection.

Claim 18, as amended, recites “transmitting radiation through [] filter components of the multi-segmented filter, and a tipping paper surrounding the filter components, in a second measuring device, and measuring a second measured value of the radiation transmitted through the filter components and the tipping paper; comparing the second measured value to second set values; and discarding the filter cigarette or the components of the filter cigarette if a difference between the second measured value and the second set values exceeds a second preset tolerance range.” Grollmund does not disclose these method steps, for at least the reason that Grollmund does not disclose transmitting radiation **through** the cigarette A. Rather, Grollmund is limited to **reflecting light off of** the cigarette A and capturing images of the reflected light. (*See, e.g.*, 5:18-29.) Accordingly, the Applicant respectfully requests that this rejection be withdrawn.

Rejections under 35 U.S.C. § 103

In paragraph 7, the Office Action rejected claims 1-4, 6, 7, and 9-16 under 35 U.S.C. §

103(a) as being unpatentable over Grollimund in view of Black. Claims 1 and 6 are the independent claims. The Applicant respectfully traverses this rejection for at least two reasons.

(1) There is no motivation or suggestion in the prior art to combine the Grollimund and Black references. The Office Action apparently relies on Grollimund for disclosure of a first measuring device that operates using reflected light, and further, apparently relies on Black for disclosure of a second measuring device that operates using transmitted light. However, there is no motivation or suggestion in the prior art to combine Grollimund's measuring device with Black's measuring device.

Grollimund is directed to optically inspecting the cylindrical surfaces of cylindrical objects, such as cigarettes. (*See, e.g.*, Grollimund at Abstract.) This is done to detect a wide variety of defects that may occur in the cylindrical objects, so that the objects can be automatically rejected. (*See, e.g.*, Grollimund at Abstract.) In the case of cigarettes, the cylindrical surface may be defective due to a piece of tobacco stem piercing the paper, an imperfection in the way the filter has been joined to the remainder of the cigarette, an imperfectly formed side seal which leaves some of the tobacco visible, a discoloration of the paper, etc. (*See* Grollimund at 1:20-27.) Grollimund is solely directed to inspecting the cylindrical surfaces of finished or substantially finished cigarettes. (*See* Grollimund at 3:61-66.) This means that the cigarettes are already wrapped in a wrapping paper. As a result, Grollimund is only directed to inspecting the integrity and the quality of the *outer surface* of the cylindrical object. For this purpose, only a light-reflection method is suitable as an inspection method, because imperfections in the *outer surface* would *not* be visible using transmitted light. Therefore,

Grollimund fails to provide any motivation or suggestion to add another measuring device that operates using transmitted light. As a result, one of ordinary skill in the art would not have been motivated to combine the teachings of Grollimund with the teachings of Black.

Black likewise fails to provide the necessary motivation or suggestion to combine. Black is directed to a photoelectric sensor for scanning a rod of cigarette filter material and for generating a timing signal to control a synchronized filter cutting operation. (*See, e.g.*, Black at Abstract.) Black is in no way concerned with inspecting the cylindrical surfaces of cigarettes for defects. As a result, one of ordinary skill in the art would *not* be motivated to add another measuring device to Black that operates using reflected light (*i.e.*, that inspects for defects). Therefore, Black fails to provide any motivation or suggestion to combine its teachings with Grollimund. Accordingly, the Applicant respectfully submits that the Office Action's combination of Grollimund and Black is improper.

(2) With respect to claim 1, neither Grollimund nor Black discloses or suggests that “the second radiation source radiates light essentially uniformly along a longitudinal axial direction of the multi-segmented filters.” The Office Action apparently relies on Black for disclosure of the claimed second measuring device, and consequently, the second radiation source. However, Black's radiation source, the incandescent light source 3 does *not* “radiate[] light essentially uniformly along a longitudinal axial direction of the [filter segments 11, 12].” Rather, Black's incandescent light source 3 focuses its light through a hole 6 onto the top of the alternating filter segments 11, 12 passing therebelow. (*See* Black at 2:63-67.) As a result, as the filter segments 11, 12 are advanced, a single, *focused spot* on the segments 11, 12 is illuminated at one time.

This is in contrast to claim 1, where the second radiation source radiates light *essentially uniformly* along a longitudinal axial direction of the multi-segmented filters.

The Applicant respectfully submits that independent claims 1 and 6 are patentable over Grollmund and Black for at least the two reasons demonstrated above. Claims 2-4, 7, and 9-16 depend variously from claims 1 and 6, and are patentable for at least the same reasons.

In paragraph 8, the Office Action rejected claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Grollmund in view of Black, and further in view of U.S. Patent No. 6,166,768 to Fossum et al. Claim 5 depends variously from claim 1. As demonstrated above, claim 1 is patentable over Grollmund and Black. Fossum does not provide the disclosure or suggestion that is missing from Grollmund and Black. Accordingly, claim 1, and dependent claim 5, are patentable over Grollmund, Black, and Fossum.

In paragraph 9, the Office Action rejected claim 17 under 35 U.S.C. § 103(a) as being unpatentable over Grollmund in view of Black. The Applicant respectfully traverses this rejection for at least two reasons.

(1) Similar to claim 1, claim 17 recites “a first measuring device comprising a first radiation source adapted to radiate light onto the rod-shaped articles or components of rod-shaped articles, and a first radiation receiver adapted to receive light reflected off of the rod-shaped articles or components of rod-shaped articles” and “a second measuring device comprising a second radiation source adapted to radiate light through the rod-shaped articles or components of rod-shaped articles, and a second radiation receiver adapted to receive light transmitted through the rod-shaped articles or components of rod-shaped articles.” The Office

Action apparently relies on Grollimund for disclosure of the first measuring device, and apparently relies on Black for disclosure of the second measuring device. However, as demonstrated above, there is no motivation or suggestion in the prior art to combine the teachings of Grollimund and Black. Accordingly, the Applicant respectfully submits that the combination of Grollimund and Black is improper.

(2) In addition, neither Grollimund nor Black discloses or suggests that “the second radiation source radiates light essentially uniformly along the longitudinal axial direction of the multi-segmented filters.” Rather, as demonstrated above, Black’s incandescent light source 3 focuses its light on a single, *focused spot* on the filter segments 11, 12, as they pass below the incandescent light source 3. (See Black at 2:63-67.)

The Applicant respectfully submits that claim 17 is patentable over Grollimund and Black for at least these two reasons.

In paragraph 10, the Office Action rejected claim 19 under 35 U.S.C. § 103(a) as being unpatentable over Grollimund in view of Black. Claim 19 has been cancelled, without prejudice. The general subject matter of cancelled claim 19 has been incorporated into amended claim 18. The Applicant respectfully submits that claim 18 is patentable over Grollimund and Black.

Claim 18, as amended, recites “reflecting radiation off of the filter components of the multi-segmented filter in a first measuring device, and measuring a first measured value of the reflected radiation” and “transmitting radiation through the filter components of the multi-segmented filter, and a tipping paper surrounding the filter components, in a second measuring device, and measuring a second measured value of the radiation transmitted through the filter

components and the tipping paper.” The Office Action apparently relies on Grollimund for disclosure of the measuring step using reflected radiation, and apparently relies on Black for disclosure of the measuring step using transmitted radiation. However, as demonstrated above, the prior art provides no motivation or suggestion to combine the measuring techniques of Grollimund and Black. Accordingly, the Applicant respectfully submits that the combination of Grollimund and Black is improper, and that claim 18 is patentable over these two references.

In paragraph 11, Office Action rejected claims 8 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Grollimund in view of Black. Claims 8 and 20 depend variously from independent claims 6 and 18, respectively. As demonstrated above, independent claims 6 and 18 are patentable over Grollimund and Black. Therefore, dependent claims 8 and 20 are patentable over Grollimund and Black for at least the same reasons.

Conclusion

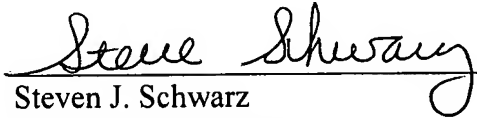
All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant, therefore, respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is hereby invited to telephone the undersigned at the number provided.

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Prompt and favorable consideration of this Amendment is respectfully requested.

Respectfully submitted,

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